



S/N 09/945,535

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Kie Y. Ahn et al.

Examiner: David S. Blum

Serial No.: 09/945,535

Group Art Unit: 2813

Filed: August 30, 2001

Docket: 1303.026US1

Title: HIGHLY RELIABLE AMORPHOUS HIGH-K GATE OXIDE ZrO<sub>2</sub>

**INFORMATION DISCLOSURE STATEMENT**

MS Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. § 1.97(c)(2), Applicants have included the fee of \$180.00 as set forth in 37 C.F.R. § 1.17(p). Please charge any additional fees or credit any overpayment to Deposit Account No. 19-0743.

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,  
KIE Y. AHN ET AL.

By their Representatives,  
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Minneapolis, MN 55402  
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Date Sept. 29, 2004  
By Suneel Arora  
Suneel Arora  
Reg. No. 42,267

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29th day of September, 2004.

Name Amy Moriarty

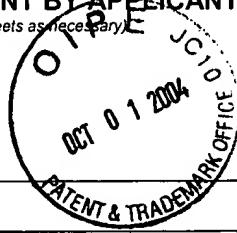
Amy Moriarty  
Signature

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary.)



Complete if Known

<b>Application Number</b>	09/945,535
<b>Filing Date</b>	August 30, 2001
<b>First Named Inventor</b>	Ahn, Kie
<b>Group Art Unit</b>	2813
<b>Examiner Name</b>	Blum, David

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Attorney Docket No: 1303.026US1

**US PATENT DOCUMENTS**

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
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DATE CONSIDERED

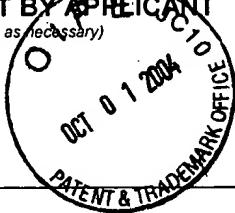
Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

<b>Application Number</b>	09/945,535
<b>Filing Date</b>	August 30, 2001
<b>First Named Inventor</b>	Ahn, Kie
<b>Group Art Unit</b>	2813
<b>Examiner Name</b>	Blum, David

Sheet 2 of 4

Attorney Docket No: 1303.026US1

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Substitute for form 1449A/PTO

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STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



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<b>Examiner Name</b>	Blum, David

Sheet 3 of 4

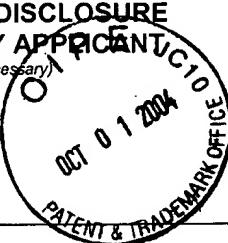
Attorney Docket No: 1303.026US1

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
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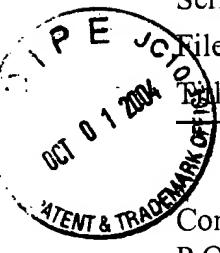
Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <small>(Use as many sheets as necessary)</small>		Complete if Known	
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		<b>Examiner Name</b>	Blum, David
		Attorney Docket No: 1303.026US1	
Sheet 4 of 4			

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PATENT

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Applicant: Kie Y. Ahn et al. Examiner: David S. Blum  
Serial No.: 09/945,535 Group Art Unit: 2813  
Filed: August 30, 2001 Docket: 1303.026US1  
Title: HIGHLY RELIABLE AMORPHOUS HIGH-K GATE OXIDE ZRO2

COMMUNICATION CONCERNING RELATED APPLICATIONS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
09/944,981	August 30, 2001	1303.021US1	GATE OXIDES AND METHODS OF FORMING
10/028,643	December 20, 2001	1303.030US1	LOW-TEMPERATURE GROWN HIGH QUALITY ULTRA-THIN CoTiO <sub>3</sub> GATE DIELECTRICS
10/052,983 6,767,795	January 17, 2002	1303.031US1	HIGHLY RELIABLE AMORPHOUS HIGH-k GATE DIELECTRIC ZrO <sub>x</sub> Ny
10/027,315	December 20, 2001	1303.033US1	LOW-TEMPERATURE GROWN HIGH-QUALITY ULTRA-THIN PRASEODYMIUM GATE DIELECTRICS
10/099,194	March 13, 2002	1303.044US1	EVAPORATION OF Y-Si-O FILMS FOR MEDIUM-k DIELECTRICS
10/081,439	February 20, 2002	1303.046US1	EVAPORATED LaAlO <sub>3</sub> FILMS FOR GATE DIELECTRICS
10/137,499	May 2, 2002	1303.050US1	ATOMIC LAYER-DEPOSITED LaAlO <sub>3</sub> FILMS FOR GATE DIELECTRICS
10/163,481	June 5, 2002	1303.056US1	ATOMIC LAYER-DEPOSITED HfAlO <sub>3</sub> FILMS FOR GATE DIELECTRICS
10/163,686	June 5, 2002	1303.059US1	Pr <sub>2</sub> O <sub>3</sub> -BASED La-oxide GATE DIELECTRICS

10/209,581	July 30, 2002	1303.061US1	ATOMIC LAYER DEPOSITED NANOLAMINATES OF HfO <sub>2</sub> /ZrO <sub>2</sub> FILMS AS GATE DIELECTRICS
10/219,870	August 15, 2002	1303.069US1	LANTHANIDE DOPED TiO <sub>x</sub> DIELECTRIC FILMS BY PLASMA OXIDATION
10/219,878	August 15, 2002	1303.070US1	LANTHANIDE DOPED TiO <sub>x</sub> DIELECTRIC FILMS
10/229,903	August 28, 2002	1303.078US1	ATOMIC LAYER DEPOSITED HfSiON DIELECTRIC FILMS
10/233,309	August 29, 2002	1303.079US1	ATOMIC LAYER DEPOSITED LANTHANIDE DOPED TiO <sub>x</sub> DIELECTRIC FILMS
10/309,583	December 4, 2002	1303.082US1	ATOMIC LAYER DEPOSITED ZR-SN-TI-O FILMS USING TiI <sub>4</sub>
10/309,935	December 4, 2002	1303.083US1	ATOMIC LAYER DEPOSITED Zr-Sn-Ti-O FILMS
10/379,470	March 4, 2003	1303.090US1	ATOMIC LAYER DEPOSITED DIELECTRIC LAYERS
10/403,734	March 31, 2003	1303.092US1	ATOMIC LAYER DEPOSITED ZrAl <sub>x</sub> O <sub>y</sub> DIELECTRIC LAYERS
10/420,307	April 22, 2003	1303.097US1	ATOMIC LAYER DEPOSITED ZrTiO <sub>4</sub> FILMS
10/602,323	June 24, 2003	1303.101US1	LANTHANIDE OXIDE / HAFNIUM OXIDE DIELECTRIC LAYERS
10/602,315	June 24, 2003	1303.107US1	LANTHANIDE OXIDE / HAFNIUM OXIDE DIELECTRICS
09/779,959	February 9, 2001		
09/838,335	April 20, 2001		
09/881,408	June 13, 2001		

09/908,767	July 18, 2001	
10/765,619	January 27, 2004	1303.033US2    LOW-TEMPERATURE GROWN HIGH- QUALITY ULTRA-THIN PRASEODYMIUM GATE DIELECTRICS
10/768,597	January 30, 2004	1303.033US3    LOW-TEMPERATURE GROWN HIGH- QUALITY ULTRA-THIN PRASEODYMIUM GATE DIELECTRICS
10/789,042	February 27, 2004	1303.050US2    ATOMIC LAYER-DEPOSITED LaAlO <sub>3</sub> FILMS FOR GATE DIELETRICS
10/789044	February 27, 2004	1303.070US2    LANTHANIDE DOPED TiO <sub>x</sub> DIELECTRIC FILMS
10/863953	June 9, 2004	1303.031US2    HIGHLY RELIABLE AMORPHOUS HIGH-k GATE DIELECTRIC ZrO <sub>x</sub> Ny

Respectfully submitted,

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By Applicants' Representatives,

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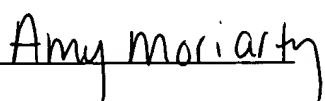
Date Sept. 29, 2004

By

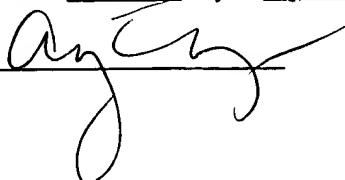


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Name



Signature



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